

1 56. (New) The apparatus of claim 46, the first card connector on the circuit
2 board separated from the second card connector on the circuit board by at least one
3 intervening card connector disposed on the circuit board.

1 57. (New) The apparatus of claim 46, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an electrically conductive path.

1 58. (New) The apparatus of claim 46, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an optical path.

REMARKS

Claims 1-39 are currently pending in the application. Claims 1-3, 5-11, 13, 16-19, 21-23, 25, 28, 33, and 36-39 stand rejected, and claims 3, 4, 12, 14, 15, 20, 24, 26, 27, 32, 34, and 35 stand objected to.

The Applicant's undersigned attorney thanks the Examiner for the telephone interview held on June 5, 2002. In accordance with our discussion during this telephone interview, Applicant proposes herein to amend claims 1, 3, 5, 9, 14, 16, 21, 26, 28, and 33-37. Applicant also proposes to add new claims 40-58.

Support for the claim amendments can be found in the as-filed specification at paragraphs [0031], [0033], [0035], [0036], and [0040]. Support for new claims 40-45 can be found in the as-filed specification at paragraphs [0028] and [0035], and support for new claims 46-58 can be found in the as-filed specification in FIGS. 5 through 8 and the accompanying text at paragraphs [0027] to [0039].

Applicant respectfully requests reconsideration of the application in view the amendments set forth herein.

CONCLUSION

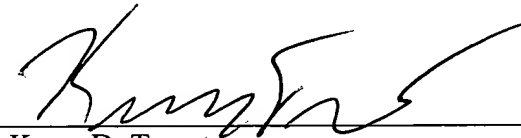
Applicant submits that claims 1-58 are in condition for allowance and respectfully requests allowance of such claims.

Please charge any shortages and credit any overages to our Deposit Account No. 02-2666.

Respectfully submitted,

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Date: July 29, 2002



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1 1. (Amended) An apparatus comprising:
2 a mounting portion including a first communication path to route at least one signal line
3 from a first card connector on a circuit board to a first card connector on the
4 mounting portion; and
5 a routing portion including a communication path, the communication path of the routing
6 portion to route at least one signal line from a second card connector on the circuit
7 board to the mounting portion, a second communication path of the mounting
8 portion to route the at least one signal line of the second card connector on the
9 circuit board to a second card connector on the mounting portion.

1 2. The apparatus of claim 1, the mounting portion and the routing portion
2 comprising a single integrated component.

1 3. (Amended) The apparatus of claim 1, further comprising at least one
2 other routing portion including a communication path to route at least one signal line
3 from a third card connector on the circuit board to the mounting portion, a third
4 communication path of the mounting portion to route the at least one signal line of the
5 third card connector on the circuit board to a third card connector on the mounting
6 portion.

1 4. The apparatus of claim 3, the routing portion and the at least one other
2 routing portion comprising a compound routing portion.

1 5. (Amended) The apparatus of claim 1, the routing portion comprising:
2 a first riser [and a second riser, the first riser to route the at least one signal line of] for
3 coupling with the second card connector on the circuit board [to the second riser,
4 the]; and
5 a second riser [to route the at least one signal line of the second card connector on the
6 circuit board to] coupled with the first riser, the second riser for coupling with the
7 mounting portion.

1 6. The apparatus of claim 5, the first riser and the second riser comprising a
2 single part.

1 7. The apparatus of claim 5, the first riser oriented substantially transverse to
2 the circuit board and the second riser oriented substantially parallel to the circuit board.

1 8. The apparatus of claim 1, the routing portion comprising a flexible cable.

1 9. (Amended) An apparatus comprising:
2 a circuit board;
3 a processor disposed on the circuit board;
4 a chip set disposed on the circuit board and coupled to the processor;
5 a first card connector disposed on the circuit board and coupled to the chip set by at least
6 one signal line;
7 a second card connector disposed on the circuit board and coupled to the chip set by at
8 least one signal line;
9 a mounting portion secured in the first card connector on the circuit board, the mounting
10 portion including a first communication path to couple the at least one signal line
11 of the first card connector on the circuit board to a first card connector disposed
12 on the mounting portion; and
13 a routing portion secured in the second card connector on the circuit board, the routing
14 portion including a communication path to couple the at least one signal line of
15 the second card connector on the circuit board to the mounting portion, a second
16 communication path of the mounting portion to couple the at least one signal line
17 of the second card connector on the circuit board to a second card connector
18 disposed on the mounting portion.

1 10. The apparatus of claim 9, further comprising a peripheral card secured in
2 one of the first card connector on the mounting portion and the second card connector on
3 the mounting portion.

1 11. The apparatus of claim 10, the mounting portion to orient the peripheral
2 card substantially parallel to the circuit board.

1 12. The apparatus of claim 9, each of the at least one signal line of the first
2 card connector on the circuit board and the at least one signal line of the second card
3 connector on the circuit board comprising at least a REQ# line and a GNT# line.

1 13. The apparatus of claim 9, the mounting portion and the routing portion
2 comprising a single integrated component.

1 14. (Amended) The apparatus of claim 9, further comprising:
2 a third card connector disposed on the circuit board and coupled to the chip set by at least
3 one signal line; and
4 at least one other routing portion secured in the third card connector on the circuit board,
5 the at least one other routing portion including a communication path to couple
6 the at least one signal line of the third card connector on the circuit board to the
7 mounting portion, a third communication path of the mounting portion to couple
8 the at least one signal line of the third card connector on the circuit board to a
9 third card connector disposed on the mounting portion.

1 15. The apparatus of claim 14, the routing portion and the at least one other
2 routing portion comprising a compound routing portion.

1 16. (Amended) The apparatus of claim 9, the routing portion comprising:
2 a first riser [and a second riser, the first riser to couple the at least one signal line of]
3 coupled with the second card connector on the circuit board [to the second riser,
4 the]; and
5 a second riser [to couple the at least one signal line of the second card connector on the
6 circuit board to] coupled with the first riser, the second riser coupled with the
7 mounting portion.

1 17. The apparatus of claim 16, the first riser and the second riser comprising a
2 single part.

1 18. The apparatus of claim 16, the first riser oriented substantially transverse
2 to the circuit board and the second riser oriented substantially parallel to the circuit board.

1 19. The apparatus of claim 9, the routing portion comprising a flexible cable.

1 20. The apparatus of claim 9, the first card connector on the circuit board
2 separated from the second card connector on the circuit board by at least one intervening
3 card connector disposed on the circuit board.

1 21. (Amended) An apparatus comprising:
2 a chassis;
3 a circuit board disposed in the chassis;
4 a processor disposed on the circuit board;
5 a chip set disposed on the circuit board and coupled to the processor;
6 a first card connector disposed on the circuit board and coupled to the chip set by at least
7 one signal line;
8 a second card connector disposed on the circuit board and coupled to the chip set by at
9 least one signal line;
10 a mounting portion secured in the first card connector on the circuit board, the mounting
11 portion including a first communication path to couple the at least one signal line
12 of the first card connector on the circuit board to a first card connector disposed
13 on the mounting portion; and
14 a routing portion secured in the second card connector on the circuit board, the routing
15 portion including a communication path to couple the at least one signal line of
16 the second card connector on the circuit board to the mounting portion, a second
17 communication path of the mounting portion to couple the at least one signal line
18 of the second card connector on the circuit board to a second card connector
19 disposed on the mounting portion.

1 22. The apparatus of claim 21, further comprising a peripheral card secured in
2 one of the first card connector on the mounting portion and the second card connector on
3 the mounting portion.

1 23. The apparatus of claim 22, the mounting portion to orient the peripheral
2 card substantially parallel to the circuit board.

1 24. The apparatus of claim 21, each of the at least one signal line of the first
2 card connector on the circuit board and the at least one signal line of the second card
3 connector on the circuit board comprising at least a REQ# line and a GNT# line.

1 25. The apparatus of claim 21, the mounting portion and the routing portion
2 comprising a single integrated component.

1 26. (Amended) The apparatus of claim 21, further comprising:
2 a third card connector disposed on the circuit board and coupled to the chip set by at least
3 one signal line; and
4 at least one other routing portion secured in the third card connector on the circuit board,
5 the at least one other routing portion including a communication path to couple
6 the at least one signal line of the third card connector on the circuit board to the
7 mounting portion, a third communication path of the mounting portion to couple
8 the at least one signal line of the third card connector on the circuit board to a
9 third card connector disposed on the mounting portion.

1 27. The apparatus of claim 26, the routing portion and the at least one other
2 routing portion comprising a compound routing portion.

1 28. (Amended) The apparatus of claim 21, the routing portion comprising:
2 a first riser [and a second riser, the first riser to couple the at least one signal line of]
3 coupled with the second card connector on the circuit board [to the second riser,
4 the]; and
5 a second riser [to couple the at least one signal line of the second card connector on the
6 circuit board to] coupled with the first riser, the second riser coupled with the
7 mounting portion.

1 29. The apparatus of claim 28, the first riser and the second riser comprising a
2 single part.

1 30. The apparatus of claim 28, the first riser oriented substantially transverse
2 to the circuit board and the second riser oriented substantially parallel to the circuit board.

1 31. The apparatus of claim 21, the routing portion comprising a flexible cable.

1 32. The apparatus of claim 21, the first card connector on the circuit board
2 separated from the second card connector on the circuit board by at least one intervening
3 card connector disposed on the circuit board.

1 33. (Amended) An apparatus comprising:
2 first routing means including a first communication means for routing at least one signal
3 line from a first card connector on a circuit board to a first card connector
4 disposed on the first routing means; and
5 second routing means including a communication means, the communication means of
6 the second routing means for routing at least one signal line from a second card
7 connector on the circuit board to the first routing means, a second communication
8 means of the first routing means to route the at least one signal line of the second
9 card connector on the circuit board to a second card connector disposed on the
10 first routing means.

1 34. (Amended) The apparatus of claim 33, further comprising a third routing
2 means including a communication means for routing at least one signal line from a third
3 card connector on the circuit board to the first routing means, a third communication
4 means of the first routing means to route the at least one signal line of the third card
5 connector on the circuit board to a third card connector disposed on the first routing
6 means.

1 35. (Amended) The apparatus of claim 33, each of the first and second
2 communication means of the first routing means and the communication means of the
3 second routing means to route one of an electrical signal and an optical signal.

1 36. (Amended) A method comprising:
2 securing a mounting structure to a first card connector on a circuit board;
3 securing a routing structure to a second card connector on the circuit board;
4 routing at least one signal line from the first card connector on the circuit board through a
5 first communication path of the mounting structure to a first card connector on the
6 mounting structure; [and]
7 routing at least one signal line from [a] the second card connector on the circuit board
8 through a communication path of the routing structure to [a second card connector
9 on] the mounting structure; and
10 routing the at least one signal line of the circuit board second card connector through a
11 second communication path of the mounting structure to a second card connector
12 on the mounting structure.

1 37. (Amended) The method of claim 36, further comprising:
2 securing a second routing structure in a third card connector on the circuit board;
3 routing at least one signal line from [a] the third card connector on the circuit board
4 through a communication path of the second routing structure to the mounting
5 structure; and
6 routing the at least one signal line of the circuit board third card connector through a third
7 communication path of the mounting structure to a third card connector on the
8 mounting structure.

1 38. The method of claim 36, further comprising:
2 routing at least a REQ# line and a GNT# line from the first card connector on the circuit
3 board to the first card connector on the mounting structure; and
4 routing at least a REQ# line and a GNT# line from the second card connector on the
5 circuit board to the second card connector on the mounting structure.

1 39. The method of claim 36, further comprising securing a peripheral card in
2 one of the first card connector on the mounting structure and the second card connector
3 on the mounting structure.

1 40. (New) The apparatus of claim 1, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an electrically conductive path.

1 41. (New) The apparatus of claim 1, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an optical path.

1 42. (New) The apparatus of claim 9, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an electrically conductive path.

1 43. (New) The apparatus of claim 9, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an optical path.

1 44. (New) The apparatus of claim 21, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an electrically conductive path.

1 45. (New) The apparatus of claim 21, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an optical path.

1 46. (New) An apparatus comprising:
2 a circuit board;
3 a first card connector disposed on the circuit board and having at least one signal line
4 extending therefrom;
5 a second card connector disposed on the circuit board and having at least one signal line
6 extending therefrom;
7 a mounting portion secured in the first card connector on the circuit board, the mounting
8 portion including a first communication path to couple the at least one signal line
9 of the first card connector on the circuit board to a first card connector disposed
10 on the mounting portion; and
11 a routing portion secured in the second card connector on the circuit board, the routing
12 portion including a communication path to couple the at least one signal line of
13 the second card connector on the circuit board to the mounting portion, a second
14 communication path of the mounting portion to couple the at least one signal line
15 of the second card connector on the circuit board to a second card connector
16 disposed on the mounting portion.

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1 47. (New) The apparatus of claim 46, further comprising a peripheral card
2 secured in one of the first card connector on the mounting portion and the second card
3 connector on the mounting portion.

1 48. (New) The apparatus of claim 47, the mounting portion to orient the
2 peripheral card substantially parallel to the circuit board.

1 49. (New) The apparatus of claim 46, the mounting portion and the routing
2 portion comprising a single integrated component.

1 50. (New) The apparatus of claim 46, further comprising:
2 a third card connector disposed on the circuit board and having at least one signal line
3 extending therefrom; and
4 at least one other routing portion secured in the third card connector on the circuit board,
5 the at least one other routing portion including a communication path to couple
6 the at least one signal line of the third card connector on the circuit board to the
7 mounting portion, a third communication path of the mounting portion to couple
8 the at least one signal line of the third card connector on the circuit board to a
9 third card connector disposed on the mounting portion.

1 51. (New) The apparatus of claim 50, the routing portion and the at least one
2 other routing portion comprising a compound routing portion.

1 52. (New) The apparatus of claim 46, the routing portion comprising:
2 a first riser coupled with the second card connector on the circuit board; and
3 a second riser coupled with the first riser, the second riser coupled with the mounting
4 portion.

1 53. (New) The apparatus of claim 52, the first riser and the second riser
2 comprising a single part.

1 54. (New) The apparatus of claim 52, the first riser oriented substantially
2 transverse to the circuit board and the second riser oriented substantially parallel to the
3 circuit board.

1 55. (New) The apparatus of claim 46, the routing portion comprising a
2 flexible cable.

1 56. (New) The apparatus of claim 46, the first card connector on the circuit
2 board separated from the second card connector on the circuit board by at least one
3 intervening card connector disposed on the circuit board.

1 57. (New) The apparatus of claim 46, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an electrically conductive path.

1 58. (New) The apparatus of claim 46, wherein each of the first and second
2 communication paths of the mounting portion and the communication path of the routing
3 portion comprises an optical path.